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C (d) a beam sampler in the path of said conditioned marking beam;

(e) a beam steerer in the path of said marking beam for directing and focusing said marking beam onto a surface of said multi-layered ^{hard disk} ~~workpiece~~ and for melting one of said at least one intermediate metallic layers and creating visible markings in said upper carbon layer without removing carbon or metal; and

C 10 (f) a materials handler for positioning ^{hard disks} ~~work-~~ ~~pieces~~ in the path of said marking beam.

2 (Amended). A laser apparatus as recited in Claim 1 wherein said variable beam attenuator includes a first optical plate responsive to said expanded laser beam and operative to generate said conditioned laser beam; and a beam splitter responsive to said conditioned laser beam and operative to split said conditioned laser beam into a plurality of beams including said marking beams.

B² 20 5 (Amended). A laser apparatus as recited in Claim 1 wherein said beam sampler further comprises a beam detector, said beam sampler being positioned in the path of said marking beam and capable of passing a sample of said marking beam to said detector, said beam detector being capable of receiving said sample and generating a signal responsive to the fluence of said marking beam.

30 6 (Amended). A laser apparatus as recited in Claim 1 wherein said variable beam attenuator includes a beam splitter, and wherein said apparatus further comprises an optical isolator for optically isolating the laser generator from any reflection of said marking beam to said laser generator, said optical isolator including a second optical plate positioned in the path of said marking beam,

whereby the polarization plane of any reflection of the marking beam is rotated such that the reflection exits the beam splitter in a direction away from said laser beam generator.

5 7 (Amended). A laser apparatus as recited in Claim 1 wherein said beam steerer comprises a galvanometer for directing said marking beam.

10 11 (Amended). A laser apparatus as recited in Claim 1 wherein said marking beam is scanned across a portion of the surface of said ~~workpiece~~ ^{hard disk} to form surface deformations therein in a predetermined pattern.

15 14 16. A laser apparatus for writing visible surface deformations on a top surface of a multi-layered ~~workpiece~~ ^{hard disk} having a top layer and a plurality of intermediate metallic layers and a supporting substrate layer, comprising:

20 (a) one of said plurality of intermediate metallic layers having a lower melting temperature than the layer above it comprising a sublayer to be melted;

(b) a laser generator for generating a laser beam;

(c) a laser beam expander, and

(d) a laser beam collimator for generating a collimated marking beam;

25 (e) an optical attenuator for controlling the energy level of said collimated marking beam;

(f) a beam sampler for diverting a sample of said collimated marking beam;

30 (g) a beam steerer coupled to receive said collimated marking beam and for writing and directing a marking beam onto said multi-layered ~~workpiece~~ ^{hard disk} for melting said sublayer to be melted and said sublayer creates visible

ripples in the top layer of said multi-layered ~~workpiece~~ ^{hard disk} upon solidifying.

15 47. A laser apparatus as set forth in Claim 46 wherein said multi-layered ~~workpiece~~ ^{hard disk} comprises a magnetic disk comprising a carbon top layer, a magnetic layer and intermediate metallic sublayer comprising nickel having a lower melting temperature than said top layer and said magnetic layer, and

visible ripples formed in said top layer by melting said sublayer.

16 48. A laser apparatus as set forth in Claim 46 which further includes control means coupled to said beam steerer and said beam sampler for controlling the intensity of said marking beam.

17 49. A laser apparatus as set forth in Claim 48 wherein said control means is coupled to said laser beam expander for controlling the size of the collimated marking beam.

18 50. A laser apparatus as set forth in Claim 46 wherein said upper layer comprises a lubricating layer on top of a carbon protective layer, and said marking beam evaporates said lubricating layer without contaminating said top layer.

19 51. A laser apparatus as set forth in Claim 50 wherein visible ripples appear in said carbon layer without removing any carbon.

REMARKS

Claims 1 to 13 were elected in a response to a requirement for restriction. Claims 14 to 45 are withdrawn from consideration in this application.